

T-03-1 – “North Louisiana Avian & Herpetofaunal Surveys”

Abstract: This grant included 2 planning projects. The unifying theme of the two projects was to gather information via baseline surveys essential to the development of the statewide *Wildlife Action Plan*. The objectives were to estimate the relative abundance, species composition, and habitat utilization of amphibians, reptiles, and birds on four Wildlife Management Areas (WMA). The 2 projects funded within this grant included:

1. “Avian Surveys of Wildlife Management Areas: Buckhorn, Sicily Island, Ouachita, Russell Sage”.

In Spring of 2003 and 2004, breeding bird surveys were conducted using standardized point count methods. In early Spring of 2003, phenology surveys were conducted to determine species richness and abundance. Phenology surveys utilized a variety of techniques but systematically surveyed each habitat present on the WMAs.

On Buckhorn WMA, 67 breeding bird species were identified and 165 total species were observed. On Sicily Island WMA, 56 breeding species were identified and 118 total species were observed. On Ouachita WMA, 84 breeding bird species were identified and 165 total species were observed. On Russell Sage WMA, 75 breeding bird species were identified and 120 total species were observed. The Northern Cardinal (*Cardinalis cardinalis*) and Carolina Wren (*Thryothorus ludovicianus*) were 2 of the 3 most abundant bird species on each of the 4 WMAs. Other abundant bird species included Red-bellied Woodpecker (*Melanerpes carolinus*; Buckhorn WMA), Hooded Warbler (*Wilsonia citrina*; Sicily Island), and Tufted Titmouse (*Baeolophus bicolor*; Ouachita and Russell Sage WMAs).

Bird species’ response to habitat management varied among species and by habitat type. There was no single habitat management regime that was universally beneficial or detrimental to all species. Managers wishing to promote non-game bird species should attempt to maintain a broad diversity of habitat types. Management should include retention of downed and standing dead wood, retention of tree species that are less commercially desirable, and interspersed of natural areas, clearcuts, shelterwood cuts, group selection and individual selection cuts. Clearcuts located adjacent to individual selection cuts may minimize edge effect on bird communities.

2. “Herpetofaunal Surveys of Wildlife Management Areas: Buckhorn, Ouachita, Russell Sage, Sicily Island”.

Visual Encounter Surveys and Anuran call surveys began in March, 2003. Drift fence, pitfall trap, funnel trap, and cover board surveys began in July, 2003. Vegetation surveys began in July, 2003. Drift fences, cover boards, pitfall traps, funnel traps, and standardized Visual Encounter Surveys were conducted along each of 52 transects. Transects were dispersed among the WMAs such that a variety of habitats were sampled while minimizing edge effect. Anuran call surveys followed the Louisiana Amphibian

Monitoring Program protocols. Turtle spotting and other incidental observations were recorded elsewhere as opportunity allowed.

On Buckhorn WMA, 44 taxa were recorded, and 1. New species records for Tensas Parish include: *Hyla squirella*, *Rana palustris*, *Kinosternon subrubrum*, *Terrapene Carolina triunguis*, *T. c. major*, *Storeria occipitomaculata*, and *Thamnophis sirtalis*. On Ouachita WMA, 40 taxa were recorded with no new species records. On Russell Sage WMA, 44 taxa were recorded with no new species records. On Sicily Island WMA, 43 taxa were recorded. New species records for Catahoula Parish include: *Hyla avivoca*, *Pseudacris crucifer*, *Ambystoma opacum*, *Pseudemys concinna*, *Crotalus horridus*, and *Storeria occipitomaculata*.

Multiple trapping and survey methods are recommended for herpetofaunal surveys. Capture rates varied by species among habitat types and survey methods. Cover board surveys were not effective and yielded few captures. Call surveys yielded the highest number of anuran observations. Trapping after rain events increased trap success.

This grant was closed 30 June 2005. **For more information** about State Wildlife Grant T-3, or to obtain copies of interim or final reports, please contact the State Wildlife Grant Coordinator, LDWF Fur & Refuge Division.